Preparing Workplaces for Digital Transformation: An Integrative Review and Framework of Multi-Level Factors

Abstract

The rapid advancement of new digital technologies, such as smart technology, artificial intelligence (AI) and automation, robotics, cloud computing, and the Internet of Things (IoT), is fundamentally changing the nature of work and increasing concerns about the future of jobs and organizations. To keep pace with rapid disruption, companies need to update and transform business models to remain competitive. Meanwhile, the growth of advanced technologies is changing the types of skills and competencies needed in the workplace and demanded a shift in mindset among individuals, teams and organizations. The recent COVID-19 pandemic has accelerated digitalization trends, while heightening the importance of employee resilience and well-being in adapting to widespread job and technological disruption. Although digital transformation is a new and urgent imperative, there is a long trajectory of rigorous research that can readily be applied to grasp these emerging trends. Recent studies and reviews of digital transformation have primarily focused on the business and strategic levels, with only modest integration of employee-related factors. Our review article seeks to fill these critical gaps by identifying and consolidating key factors important for an organization's overarching digital transformation. We reviewed studies across multiple disciplines and integrated the findings into a multi-level framework. At the individual level, we propose five overarching factors related to effective digital transformation among employees: technology adoption; perceptions and attitudes toward technological change; skills and training; workplace resilience and adaptability, and work-related wellbeing. At the group-level, we identified three factors necessary for digital transformation: team communication and collaboration; workplace relationships and team identification, and team adaptability and resilience. Finally, at the organizational-level, we proposed three factors for digital transformation: leadership; human resources, and organizational culture/climate. Our review of the literature confirms that multi-level factors are important when planning for and embarking on digital transformation, thereby providing a framework for future research and practice.